

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

JOINT USE OF A SALES ORGANIZATION BY TWO COOPERATIVE ASSOCIATIONS¹

By KELSEY B. GARDNER

Agricultural Economist, Division of Cooperative Marketing, Bureau of Agricultural Economics

CONTENTS

Page		Page
Cooperative marketing and the maintenance of an all-year salaried sales organization-----	Present operation of the sales agreement between the California Fruit Exchange and the California Fruit Growers Exchange-----	9
Joint-sales agreement between the California Fruit Growers Exchange and the California Fruit Exchange-----	Effective utilization of the sales organization-----	10
Reasons for originating the sales agreement between the associations-----	Sales advantages resulting from the joint-sales agreement-----	20
Form of the agreement-----	Cost of maintenance advantages resulting from the joint-sales agreement-----	29
	Conclusions regarding joint use of a sales organization-----	30

COOPERATIVE MARKETING AND THE MAINTENANCE OF AN ALL-YEAR SALARIED SALES ORGANIZATION

Many cooperative associations are finding it advantageous to market their products through joint-sales organizations. These are varied in form, depending upon the nature of the requirements to be met. Illustrative of one form of joint use of a sales organization is the arrangement whereby the deciduous fruit of the California Fruit Exchange is sold through the sales organization of the California Fruit Growers Exchange.

This study of the joint-selling arrangement between these two associations was undertaken at the request of the board of directors of the California Fruit Growers Exchange by the Division of Cooperative Marketing of the Bureau of Agricultural Economics as a part of its program of economic research in the field of agricultural marketing by cooperative associations. The nature of the agreement and the fact that it has been in operation for a period of over 25 years are of sufficient weight to make the arrangement and its operation of special interest to the managements of cooperative associations who are giving thought to the possibilities of joint use of a sales organization with one or more other associations.

The seasonal character of the marketing of the commodities sold by some cooperative associations prompts their managements to this

¹Acknowledgment is made of assistance in the preparation of this report by Christine R. Beard, Edward B. Ballow, and John H. Lister, Division of Cooperative Marketing.

consideration of the joint use of a sales organization with one or more other associations. An all-year salaried sales organization with representatives in various markets is difficult to maintain economically when the marketing of the commodity is so seasonal in character that a sales organization designed to perform the marketing function efficiently during the seasonal peak would be without a sufficient quantity of the commodity during the remainder of the year to justify the cost of its maintenance.

The joint use of a sales organization by two or more associations, whenever feasible, should result in a more effective utilization of the sales organization throughout the year, sales advantages accruing to both the associations, and a reduction in the cost of maintenance to each of the associations below the cost of separate sales connections rendering comparable service. If these results are attained to the satisfaction of the associations, then the joint-sales arrangement has been justified.

Broadly classified, the relations between the cooperative associations in joint-selling arrangements range between those of a principal-and-agent nature, whereby one organization contracts to handle the sale of commodities of the other; and relations of joint control and financial responsibility for the maintenance of the sales organization. Within these limits, numerous combinations are possible in which the relations of the contracting associations vary from those of principal and agent to those of joint control and responsibility for the maintenance of the marketing agency.

It is the purpose of this circular to set forth: (1) The general plan of an agreement by which the sales organization of the California Fruit Growers Exchange functions as the distributing agency for the fruit of the California Fruit Exchange under relations which are neither those of principal and agent nor those of complete joint control and responsibility, and (2) the results of a study of the present operation of this arrangement made to determine whether the sales arrangement has resulted in a more effective utilization of the sales organization, sales advantages to the associations, and savings to the associations in the cost of maintaining sales organizations.

JOINT-SALES AGREEMENT BETWEEN THE CALIFORNIA FRUIT GROWERS EXCHANGE AND THE CALIFORNIA FRUIT EXCHANGE

The basis of this study is the sales agreement whereby the deciduous fruit of the California Fruit Exchange is sold through the citrus-fruit sales organization maintained by the California Fruit Growers Exchange.

The California Fruit Exchange, with headquarters at Sacramento, Calif., is a nonprofit stock corporation, organized for the marketing of deciduous fruit under the laws of the State of California. The organization markets the deciduous fruit grown by its growers, who approximate 7,000 in number. This organization shipped 11,934 cars of deciduous fruit during 1925.²

The California Fruit Growers Exchange, with headquarters at Los Angeles, Calif., is a nonstock, nonprofit organization, incorpo-

² From "The Blue Anchor," February, 1926, published by the California Fruit Exchange, Sacramento, Calif.

rated for the marketing of citrus fruit under the laws of the State of California. The duly elected representatives of the 22 district exchanges, which in turn are subgroups of local associations, are the members of the California Fruit Growers Exchange.³ The approximately 12,000 growers who are affiliated with the local associations that form the 22 district exchanges marketed 46,593 cars of citrus fruit through the California Fruit Growers Exchange during the year November 1, 1925, to October 31, 1926.

For the selling of the citrus fruit of these growers a salaried sales organization is maintained by the California Fruit Growers Exchange. This sales organization is headed by the orange sales manager and the lemon sales manager, who with their assistants are located in Los Angeles. The sales territory in the United States and Canada is divided into five general divisions, with a division manager in charge of each. In addition to the 5 division managers, the California Fruit Growers Exchange maintains salaried sales representatives in 9 auction markets in the United States, and in 42 markets in the United States and Canada where the exchange sells citrus fruit at private sale and does not employ auctions. The salaried sales representatives in the 9 auction markets and in the 42 private-sales markets are designated as district managers.

Each division manager has general supervision of the district managers, their assistants, and other office personnel within his division. Each district office, however, is a separate unit in its relation to the Los Angeles office in so far as sale of fruit is concerned. Communication relative to sale of fruit is direct between the district office and the Los Angeles office. Questions of a general nature regarding sales policies, personnel changes, opening or closing of district offices, and other questions of policy are considered by the officials at Los Angeles and by the division managers.

In addition to the salaried sales representatives, a number of brokers represent the California Fruit Growers Exchange in markets where salaried agents are not located. These brokers are classed either as direct brokers or as subbrokers. Direct brokers communicate directly with the Los Angeles office, whereas subbrokers take up sales questions with the salaried representatives in the districts in which they are located. All the principal citrus-fruit markets of the United States and Canada are thus reached either through salaried representatives or through brokers of the California Fruit Growers Exchange.

In the actual selling of citrus fruit, the California Fruit Growers Exchange and its employees act in the capacity of agents only. Questions relative to the acceptance or rejection of offers of sale must be referred by district managers to the Los Angeles office, which in turn communicates with the local shipping association through the district exchange with which the shipping association is affiliated. In the case of direct shippers, the Los Angeles office refers the district sales managers' questions to the shippers themselves, as these shippers are not affiliated with district exchanges.

³ The organization of the California Fruit Growers Exchange is explained in U. S. Dept. Agr. Bul. No. 1237, "Organization and Development of a Cooperative Citrus-Fruit Marketing Agency," 1924.

REASONS FOR ORIGINATING THE SALES AGREEMENT BETWEEN THE ASSOCIATIONS

The marketing requirements of the California Fruit Growers Exchange were quite favorable to the inauguration of the joint-sales arrangement in 1901. The production of oranges was largely restricted, at that time, to the navel variety, which was marketed principally during the winter and spring months. This condition resulted in a distribution of highly seasonal character and left only a very small quantity of business to be transacted during the summer and fall months by the sales organization. Although the marketing of citrus fruit has become less seasonal in character during recent years because of the increased production of Valencia oranges, there yet remains a pronounced seasonal peak during the spring months. Thus the sales organization continues in a position favorable to the handling of some other commodity, for example, deciduous fruit, during several months of the year.

The opportunity for taking on additional products during the summer and fall months was presented in 1901, when the California Fruit Exchange was organized, as California deciduous-fruit marketing takes place in greatest volume during the summer and fall months. The highly seasonal character of the marketing of deciduous fruit, as well as the small volume controlled by the California Fruit Exchange, presented a situation unfavorable to the establishment of an all-year salaried sales organization for the marketing of deciduous fruit.

The marketing requirements of the two associations were thus favorable to the use of a common sales organization. They, therefore, entered into an agreement, in 1901, whereby the deciduous fruit of the California Fruit Exchange was to be sold by the sales organization of the California Fruit Growers Exchange.⁴

In addition to the advantage of a more economical cost of operation to be gained by the California Fruit Growers Exchange through handling the deciduous fruit of the California Fruit Exchange, there was a definite desire on the part of those directing the California Fruit Growers Exchange to be of aid in the development of cooperation in the deciduous-fruit industry of California.

Authority for this arrangement was granted by the board of directors of the California Fruit Growers Exchange on April 24, 1901. With the exception of the brief period of existence of the California Fruit Agency (April 1, 1903, to August 31, 1904), the deciduous fruit of the California Fruit Exchange has been handled continuously in season by the sales agencies of the California Fruit Growers Exchange. The arrangement, therefore, has been in operation a sufficient length of time to form the basis of a study of the joint use of a sales organization by two cooperative marketing associations.⁵

⁴At the time of the inauguration of the sales arrangement, the predecessor of the present California Fruit Growers Exchange was the Southern California Fruit Exchange. For an account of the development of the California Fruit Growers Exchange see U. S. Dept. Agr. Bul. No. 1237, "Organization and Development of a Cooperative Citrus-Fruit Marketing Agency," 1924.

⁵This study is based on the production and marketing conditions existing during the period from November, 1920, to July, 1926. The increases in recent years in the quantities of citrus fruit and deciduous fruit sold through the sales organization during the summer and fall months appear to require concurrent study, especially in certain markets, of the monthly sales of both citrus fruit and deciduous fruit in order that any effects arising from the joint use of the sales organization which may be detrimental to the interests of either citrus-fruit or deciduous-fruit growers may be discerned readily. The proper remedial steps can then be taken in time to meet the requirements of the situation.

FORM OF THE AGREEMENT

The agreements between the two associations for the first few years of the arrangement were entered into for terms of only one year. Beginning in the year 1909, however, the term of each succeeding agreement was extended to three years. The provisions of the agreements have been, for the most part, of the same nature and intent throughout the life of the arrangement between the two associations, with the principal exceptions of changes in the length of term of agreements, the rate charged for the sale of deciduous fruit, and the period of notice to be given by either association in the event that the agreement is not to be renewed.

By the agreement in its present form, the California Fruit Exchange agrees to sell all deciduous fruit under its control through the sales agencies maintained by the California Fruit Growers Exchange, with the exception of fruit sold or consigned for local consumption in the State of California. The California Fruit Exchange also agrees to bear its own business risks and losses and the telegraphic expenses incident to the sale of its fruit.

The California Fruit Growers Exchange agrees to maintain its sales organization and to permit, for specified rates, the California Fruit Exchange to direct and supervise its agents for the sale of deciduous fruit and to use the sales organization of the California Fruit Growers Exchange in the same manner as the latter organization, in so far as the sale of deciduous fruit requires, with the provision that the direction and supervision by the California Fruit Exchange shall not be detrimental to the interests of growers whose citrus fruit is sold through the California Fruit Growers Exchange. The California Fruit Exchange is thus permitted to make full and joint use of the sales organization, in so far as the sale of its deciduous fruit requires, without assuming the responsibilities of the maintenance of the sales organization.

Other features of the agreement are contained in the form of the agreement executed December 19, 1923, which follows:

This agreement made and entered into this 19th day of December, 1923, by and between the California Fruit Exchange, a corporation duly incorporated under the laws of the State of California, and having its principal place of business at Sacramento, in the State of California, the party of the first part, and the California Fruit Growers Exchange, a corporation incorporated under the laws of the State of California, and having its principal place of business in the City of Los Angeles, State of California, the party of the second part, witnesseth:

That whereas the party of the first part and the party of the second part have heretofore and are now, as agents and on a cooperative basis, carrying on the business of handling fruits grown respectively by their several members or stockholders;

And whereas the party of the second part has established offices and agencies in various eastern cities for the purpose of selling and marketing the fruits of its members and stockholders, and is now carrying on its business through said offices and agencies;

And whereas the party of the first part desires to market and sell its fruit and the fruit of its members and stockholders, and all fruits under its control, through the said agencies of the said party of the second part;

Now, therefore, in consideration of the premises, it is mutually understood and agreed as follows, to wit:

I

That the party of the first part shall and will sell and market all fresh deciduous fruits in any manner owned, held, or otherwise to be sold, consigned,

or disposed of by it, at any place whatsoever, except fruit sold or consigned for local consumption in the State of California, through the agents and agencies of the party of the second part as now established or as may hereafter be established by the said second party, and in accordance with the rules and regulations under which the party of the second part sells and markets the fruits of its own members and stockholders, and the party of the second part agrees to furnish to the party of the first part, and the party of the second part agrees to permit the party of the first part to have the services of its said agents and the use of its said agencies in the marketing and selling of its said fruit, and agrees to give to the party of the first part the same opportunities and privileges for marketing and selling its said fruits as are now or may hereafter be enjoyed by the party of the second part, subject always to the paramount right on the part of the party of the second part to manage, conduct, and carry on its said business in such a way as shall not allow the party of the first part in any way to interfere with, injure or damage the same; provided, however, that the provisions of this agreement shall not apply to or be deemed to cover fruit grown outside the State of California.

II

It is further agreed that this agreement shall go into effect on the first day of February, 1924⁶ and shall terminate and end three (3) years thereafter, provided that either party hereto shall have the right to terminate this agreement at the end of any current year by filing with the other party, on or before December 1st of such year, notice in writing to that effect. And it is further agreed that the party of the first part shall not market, sell, consign, or otherwise dispose of any of its said fruit otherwise than through the agents and agencies of the party of the second part during the life of this agreement, except that the provisions of this agreement shall not apply to fruit used for local consumption in the State of California as hereinbefore set forth; and that it will in all things cooperate with the party of the second part for the furtherance of their best interests.

III

It is further agreed that during the term of this agreement the party of the first part hereto as agent, owner, or otherwise shall not market, sell, consign, or in any other manner handle California citrus fruits, and that during the life of this agreement the party of the second part, either as owner, agent, or otherwise, shall not market, sell, consign, or in any other manner handle California fresh deciduous fruits. It is also expressly agreed that nuts and dried fruits shall be excepted from the provisions of this agreement.

IV

It is further agreed that the party of the first part shall have the direction and supervision of the agents of the party of the second part for the purpose of marketing and selling its said fruit and shall be entitled to use the marketing system of the party of the second part in the same manner as it is or shall be used by the party of the second part, so far as may be required for the marketing and selling of its said fruit, and that the business of the party of the first part shall be handled from its own Sacramento office; provided, however, that the said direction and supervision by the party of the first part shall not in any manner be to the detriment, inconvenience or injury of the party of the second part as herein provided.

V

It is further agreed that each of the parties hereto shall bear its own losses from its own business and assume its own business risks. The party of the first part shall pay all of its telegraphic expenses.

⁶This sales arrangement has been renewed for the three-year period beginning Feb. 1, 1927.

The party of the second part agrees, so far as it may be able to do so, without the payment of additional or extra premiums, to get the consent of sureties upon the indemnity bonds of its several agents to modify the same so as to indemnify the party of the first part in the same manner as the party of the second part may therein be indemnified.

VI

It is further agreed that the party of the second part shall use every reasonable effort to secure for the party of the first part the same arrangements at auction points which are now or may hereafter be enjoyed by the party of the second part. But it is understood that the party of the first part shall sell its fruit marketed in the cities of Boston, New York, Philadelphia, Baltimore, Pittsburgh, Cleveland, Cincinnati, Chicago, and St. Louis through such auction companies and under such conditions and terms of sale as may be arranged by the party of the second part.

VII

It is further agreed that the party of the second part, at its own cost and expense, shall keep and maintain its system for selling and marketing fruit during the term of this agreement, and that for the privileges and rights herein granted to the party of the first part, the party of the first part shall pay to the party of the second part — for each and every one of its cars sold at auction or commission, and — per car for each and every one of its cars sold other than at auction or commission during the term of this agreement; except on sales made direct through brokers, the party of the first part will pay only the brokerage charges by such broker, provided that on sales made through brokers working through a district manager the regular — charge will apply; party of the first part agrees to pay all charges, taxes, assessments or costs by whatever name known imposed by any governmental authority, foreign, national, state or local, upon party of the second part by reason of its acting for the party of the first part hereunder and which the party of the second part would not otherwise have been required to pay.

VIII

It is further agreed that the party of the first part shall within ten days after the first of each and every month during the term of this agreement pay to the party of the second part the amount provided for under Article VII of this agreement on all sales reports on which shall have been received by the party of the first part during the month next preceding each payment.

The final settlement for each current year under the terms of this agreement shall be had and made as soon as the party of the first part shall have received the reports of its sales for its fruit year ending January 31, 1925, January 31, 1926, and January 31, 1927, respectively, but not later than said January 31 of each said current fruit year.

The agents of the party of the second part when reporting sales on cars of the party of the first part shall make reports in duplicate and furnish one of them to the party of the second part at its said Los Angeles office.

IX

It is further agreed that all auction charges and commission shall be charged against the shipments of the party of the first part and deducted from the proceeds of its sales in the same manner as such charges and commission are now charged against shipments made by the party of the second part, and deducted from the proceeds of its sales.

X

It is further agreed that the party of the first part, subject to the limitations hereinbefore provided for, may from time to time give to the party of the second part and to its said agents such instructions in relation to transacting

its said business as the party of the first part may deem necessary, a copy of which instructions shall be furnished to the party of the second part, and in carrying out such instructions the party of the second part and its agents or employees shall not be liable to the party of the first part for any loss or damage which may ensue.

XI

It is further understood that the parties hereto are cooperating for their mutual benefit and not for profit, and that the various agencies of the party of the second part will be used by the party of the first part for the marketing and selling of its fruit herein provided for, and therefore it is agreed that in the using of said agencies of the party of the second part, the party of the second part shall assume no responsibility, and that it shall not become liable to the party of the first part for any errors or mistakes, not excepting negligence or defalcation, that may be made by the agents or employees of the party of the second part in carrying on the business of said party of the first part, and that the party of the second part shall not become liable to the party of the first part on account of the failure of any bank or banks in which the moneys or proceeds of the sales of the fruit of said party of the first part shall or may be deposited, or for the failure of any bank or banks by or upon which drafts or checks may be made or drawn for remittance of said proceeds.

XII

It is further agreed that this agreement shall not be construed as obligating the party of the second part to prosecute any claim or demand whatsoever of the party of the first part, but that the party of the first part shall have the privilege of using the claim department of the party of the second part for the presentation and adjustment of its claims for overcharges, or loss and damage against transportation and refrigeration companies, in exactly the same manner as its said claim department is or shall be used by the party of the second part.

It is further agreed that the party of the second part shall not be liable to any purchaser of the products of the party of the first part, in any manner, or for or on account of any demand or claim whatsoever made by such purchaser, but the first party will indemnify the second party for any recovery in court by such purchasers on account of such sales, including attorneys' fees and costs.

XIII

It is further agreed that the party of the first part shall in the collection and remittance of the proceeds of its sales, use the same depositories for its funds and adopt the same method of accounting and remittances of the proceeds of the sales of its fruits that are now employed and used by the party of the second part.

XIV

It is further agreed that the provisions and stipulations of this agreement shall apply to and bind the successors and assigns of the respective parties hereto.

In witness whereof the parties hereto have set their hands and corporate seals by their respective presidents and secretaries, they being duly authorized so to do, this 19th day of December, A. D. 1923.

CALIFORNIA FRUIT EXCHANGE.

By _____
Its president

By _____
Its secretary

CALIFORNIA FRUIT GROWERS EXCHANGE.

By _____
Its president

By _____
Its secretary

PRESENT OPERATION OF THE SALES AGREEMENT BETWEEN THE
CALIFORNIA FRUIT EXCHANGE AND THE CALIFORNIA FRUIT
GROWERS EXCHANGE

When the arrangement between the two organizations was inaugurated in 1901, and for a number of subsequent years, the quantity of citrus and deciduous fruits was such that there was no doubt concerning the effectiveness and desirability of the agreement from the standpoint of the interests of both associations. It seemed desirable to study the present operation of the agreement under the changed conditions of increased volume of both citrus and deciduous fruits and of less seasonal marketing of citrus fruit to determine whether the joint-selling arrangement is still advantageous to both associations.

This study was restricted principally to operation during the last five years or certain portions of that time. This period was selected because of the desire to measure the effectiveness of the joint-selling arrangement under conditions of large quantities of citrus and deciduous fruits moving at the same time.

Representatives of the Division of Cooperative Marketing studied the main offices of the organizations at Los Angeles and Sacramento to obtain data. They also studied the following 24 private-sales offices of the California Fruit Growers Exchange: Albany, N. Y.; Atlanta, Ga.; Buffalo, N. Y.; Columbus, Ohio; Denver, Colo.; Detroit, Mich.; Fort Worth, Tex.; Grand Rapids, Mich.; Hartford, Conn.; Indianapolis, Ind.; Kansas City, Mo.; Louisville, Ky.; Memphis, Tenn.; Milwaukee, Wis.; Minneapolis, Minn.; Oklahoma City, Okla.; Omaha, Nebr.; Peoria, Ill.; Providence, R. I.; Richmond, Va.; Scranton, Pa.; Sioux City, Iowa; Syracuse, N. Y.; and Wichita, Kans. The sales offices in 9 auction markets were visited: Baltimore, Md.; Boston, Mass.; Chicago, Ill.; Cincinnati, Ohio; Cleveland, Ohio; New York, N. Y.; Philadelphia, Pa.; Pittsburgh, Pa.; and St. Louis, Mo. In 6 of these auction markets, Baltimore, Chicago, Cincinnati, Cleveland, Pittsburgh, and St. Louis, private sales of citrus and deciduous fruits are made by the sales organization in territory outside of each city. The direct broker's office at Toledo, Ohio, was also visited. The salaried sales offices studied are important ones and constitute 33 of the 51 offices managed by salaried employees of the California Fruit Growers Exchange. They were selected because of the large volumes of citrus and deciduous fruits sold through them.

In all of these offices, with the exceptions of New York, Boston, Toledo, and Philadelphia, customer records of private sales were examined for the period January, 1923, to August, 1926 (43 months). The data collected included each customer's purchases of carload quantities of citrus and deciduous fruits by months during the period. For the purposes of the survey, the number of cars sold at private sale to customers in these selected markets in relation to the total amounts of citrus and deciduous fruits sold at private sale in all private-sales areas constitute a more than adequate sample which may be regarded as indicative of the entire private-sales market for citrus and deciduous fruits of the two associations.

Fruit sold in these selected private-sales areas to customers whose records were studied amounted to almost 60 per cent of the total amount of citrus and almost 70 per cent of the deciduous fruit sold by the California Fruit Growers Exchange in the United States and Canada in all private-sales areas during each of the calendar years 1923, 1924, and 1925 (Table 1).

TABLE 1.—*Care of citrus and deciduous fruits sold by California Fruit Growers Exchange agents in all private-sales areas and number of cars purchased by customers in areas selected for study*¹

Year	Number of cars sold in all private- sales areas ²	Cars sold to cus- tomer group studied ³	
		Total number	Percent- age of total sales
Citrus fruit:			
1923	30,857	⁴ 18,381	59.6
1924	26,384	⁵ 15,659	59.4
1925	22,127	⁶ 13,175	59.5
Deciduous fruit:			
1923	4,473	⁴ 3,023	67.6
1924	3,653	⁵ 2,568	70.3
1925	4,287	⁶ 3,000	70.0

¹ It should be understood that all offices are not represented for all three years and that the change to auction sale of citrus fruit in Chicago in 1923 reduced the number of private-sales customers of the Chicago office.

² United States and Canadian sales districts, including direct-broker offices.

³ Only sales to customers indicated by name have been included in these figures. The relatively small number of cars of fruit sold to miscellaneous purchasers and indicated in the records as "various buyers" have not been included in the totals in this column.

⁴ The following private-sales areas are included in the 1923 data: Albany, Atlanta, Baltimore, Buffalo, Chicago, Cincinnati, Cleveland, Columbus, Denver, Detroit, Fort Worth, Grand Rapids, Hartford, Indianapolis, Kansas City, Memphis, Milwaukee, Minneapolis, Peoria, Pittsburgh, Providence, Richmond, Scranton, Sioux City, St. Louis, Syracuse, and Wichita.

⁵ For the year 1924, Omaha and Oklahoma City districts were added to those shown for 1923.

⁶ For the year 1925, Louisville was added to the cities indicated in ⁴ and ⁵.

Sales of deciduous fruit at auction through the sales organization of the California Fruit Growers' Exchange were regarded as mutually advantageous to the growers of both associations for reasons which will be developed during the analysis of the results of the study.

The plan of the study was directed toward determining whether the joint-selling arrangement had resulted in (1) effective utilization of the sales organization, (2) sales advantages, and (3) advantages in lower cost of sales-organization maintenance to each association.

EFFECTIVE UTILIZATION OF THE SALES ORGANIZATION

SALE OF DECIDUOUS FRUIT AT AUCTION

At the outset of this study it seemed that the portion of deciduous fruit moving through the auction might be eliminated as a source of detriment to the efficient marketing of citrus fruit. Several important factors leading to this conclusion were: (1) The handling of deciduous fruit permits of a better bargaining position with the auction company regarding rotation of sales of citrus and deciduous fruits because of the greater quantity of fruit controlled by

one organization. (2) Sufficient evidence was presented to lead to the conclusion that the handling of deciduous fruit was a factor in causing more favorable adjustments of auction rates and other charges incident to the auctioning of citrus and deciduous fruits. The extent of this factor is not measurable; yet whatever weight it carries is entirely favorable to the interests of the growers. (3) Sale of deciduous fruit through an auction, so far as the representatives of the California Fruit Growers Exchange are concerned, is largely one of making arrangements with the auction companies for adequate handling of fruit, rates, sales rotation, and the provision of employees to care for the supervisory and clerical activities incident to the sale of fruit. Details of the actual selling are handled by the auction companies.

From reports of sales agents it was determined that during the three seasons 1922-23, 1923-24, and 1924-25, an average of 58.5 per cent of the total number of cars of deciduous fruit sold through the agents of the California Fruit Growers Exchange was disposed of at auction. There was sufficient evidence to lead to the conclusion that mutual benefits accrued to each association through the citrus and deciduous fruits sold through the auction.

The analysis was thus largely centered on the sale of fruit in private-sales markets, where personal salesmanship is the important factor.

GROWTH IN VOLUME OF CITRUS AND DECIDUOUS FRUIT SHIPMENTS BY THE TWO ASSOCIATIONS

Reference has been made to the growth in the quantities of citrus and deciduous fruits shipped by the associations. The marked increase in the quantity of deciduous fruit of the California Fruit Exchange within the six-year period 1920-1925, during which the total volume was more than doubled, is of importance in determining whether growers receive full sales service during the period when both deciduous and citrus fruits are being sold by the sales organization.

The total number of cars of deciduous fruit shipped annually by the California Fruit Exchange is shown in Table 2, and the annual shipments of citrus fruit by the California Fruit Growers Exchange are shown in Table 3.

TABLE 2.—*Shipments of deciduous fruit by the California Fruit Exchange, 1901-1925*

Year	Cars shipped						
	<i>Number</i>		<i>Number</i>		<i>Number</i>		<i>Number</i>
1901	201	1907	558	1913	1,730	1919	5,321
1902	487	1908	850	1914	2,432	1920	5,776
1903	537	1909	1,425	1915	2,220	1921	6,281
1904	571	1910	1,488	1916	2,310	1922	7,656
1905	640	1911	1,849	1917	3,320	1923	10,935
1906	515	1912	1,900	1918	4,064	1924	8,487
						1925	11,935

TABLE 3.—*Shipments of citrus fruit by the California Fruit Growers Exchange, 1909–1925*

Year beginning Nov. 1—	Number of boxes shipped—			
	Total citrus fruit ¹	Navel oranges	Valencia oranges	Lemons
1909–10.....	7,450,074	4,352,003	802,683	1,026,389
1910–11.....	10,985,338	5,656,029	1,655,336	1,626,237
1911–12.....	9,424,346	5,684,157	1,551,103	1,769,774
1912–13.....	4,513,606	2,451,101	1,036,594	803,239
1913–14.....	12,085,895	7,233,677	2,986,429	1,192,578
1914–15.....	11,689,189	6,434,334	2,367,640	2,378,169
1915–16.....	12,209,968	5,641,984	3,566,894	2,359,236
1916–17.....	15,961,529	8,506,262	4,067,055	2,625,250
1917–18.....	7,969,167	1,744,442	3,210,477	2,358,507
1918–19.....	16,264,949	5,709,292	5,841,306	3,772,223
1919–20.....	14,990,079	4,958,411	5,675,068	3,588,962
1920–21.....	19,535,885	7,492,607	7,097,198	4,175,117
1921–22.....	11,617,311	4,040,417	3,666,283	3,496,222
1922–23.....	17,857,418	6,873,888	6,963,121	3,212,347
1923–24.....	19,390,596	7,756,596	6,523,232	4,590,144
1924–25.....	16,144,396	6,604,911	4,865,729	4,177,279

¹ Includes citrus fruit not specified.

The number of cars of deciduous fruit of the California Fruit Exchange not sold by the sales agents of the California Fruit Growers Exchange is relatively small, so that this series of carload shipments presents a reliable indicator of the growth of deciduous-fruit

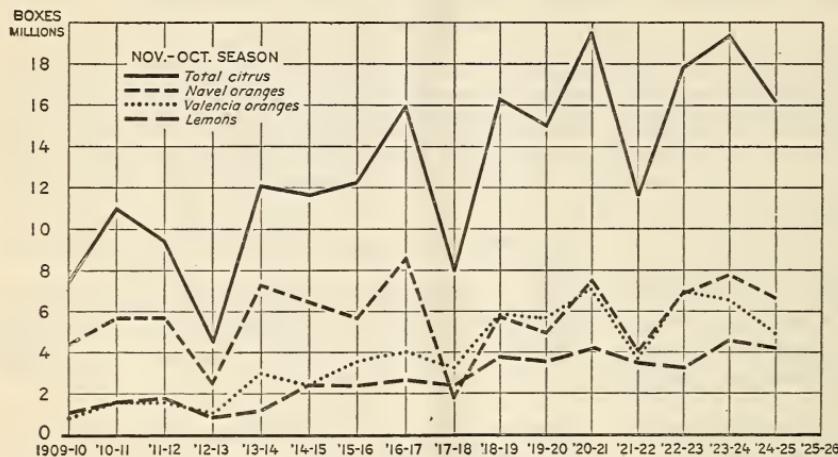


FIG. 1.—SHIPMENTS OF CITRUS FRUIT BY THE CALIFORNIA FRUIT GROWERS EXCHANGE

The increase in the annual shipments of Valencia oranges is indicated in comparison with annual shipments of lemons, navel oranges, and total shipments of all citrus fruit

sales through the California Fruit Growers Exchange. Comparison of the rates of increase between citrus fruit and deciduous fruit on the basis of the data included in these tables leads to the conclusion that, while citrus fruit a little more than doubled in volume over the period 1909–1925, deciduous-fruit shipments increased about eightfold.

On the basis of actual carloads sold through agents of the California Fruit Growers Exchange, the number of cars of deciduous fruit handled in the year 1923-24 was about one-fifth the number of cars of citrus fruit sold. In 1924-25, a comparatively short crop year for both citrus and deciduous fruits, the number of cars of deciduous was about one-fourth that of citrus fruit.

The figures of Table 3 are shown in graphic form in Figure 1. It is apparent that the quantity of Valencia oranges, which are marketed principally during the deciduous-fruit season, has increased materially during the 1909-1925 period. That this is also the situation relative to the total volume of citrus fruit marketed by the

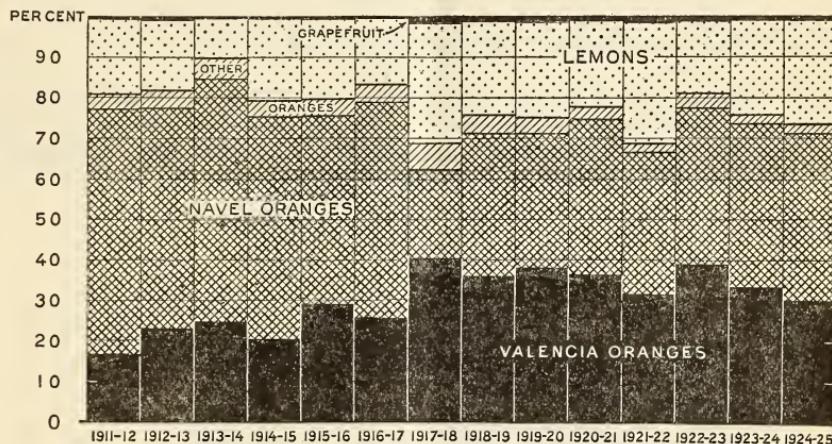


FIG. 2.—RELATIVE QUANTITIES OF VARIOUS CITRUS FRUITS SHIPPED ANNUALLY BY THE CALIFORNIA FRUIT GROWERS EXCHANGE, YEAR NOVEMBER, 1911-OCTOBER, 1912 TO YEAR NOVEMBER, 1924-OCTOBER, 1925

The changes in the relative quantities of Valencia oranges shipped annually indicate the increasing importance of this variety in the marketing plans of the California Fruit Growers Exchange.

California Fruit Growers is indicated in Figure 2 by the percentage relation which the volume of Valencia oranges bears to the total shipments of citrus fruit.

The increase in the production of Valencia oranges has tended toward the removal of a portion of the seasonal peak in the citrus business of the California Fruit Growers Exchange (Table 4). The data on monthly movements of citrus fruit shown in Table 4 are presented in Figure 3. Although a reduction has been made in the percentage of the citrus-fruit movement taking place during March, April, and May, and an increase made in the relative quantity moved later in the season, there still is a period during the months of March, April, May, and June in which the monthly movement of citrus fruit is heaviest.

TABLE 4.—*Percentage of citrus fruit moved each month by the California Fruit Growers Exchange, November, 1910, to October, 1925*

Month	Average percentage shipped ¹			Month	Average percentage shipped ¹		
	1910-1915	1915-1920	1920-1925		1910-1915	1915-1920	1920-1925
November	5.5	6.1	5.6	May	14.2	12.9	12.2
December	9.1	7.8	7.4	June	10.0	10.9	11.4
January	7.9	6.3	7.5	July	6.1	7.9	8.3
February	8.6	7.9	7.3	August	3.7	5.8	6.5
March	13.4	11.8	11.1	September	3.3	4.5	6.0
April	14.8	12.7	11.2	October	3.4	5.4	5.5

¹ Five-year average percentages of annual shipments moved each month.

Thus, there remain at least four months during the year—August, September, October, and November—during which the smallest relative quantities of citrus fruit are shipped, so that the deciduous-fruit movement comes at a time when, despite the Valencia-orange

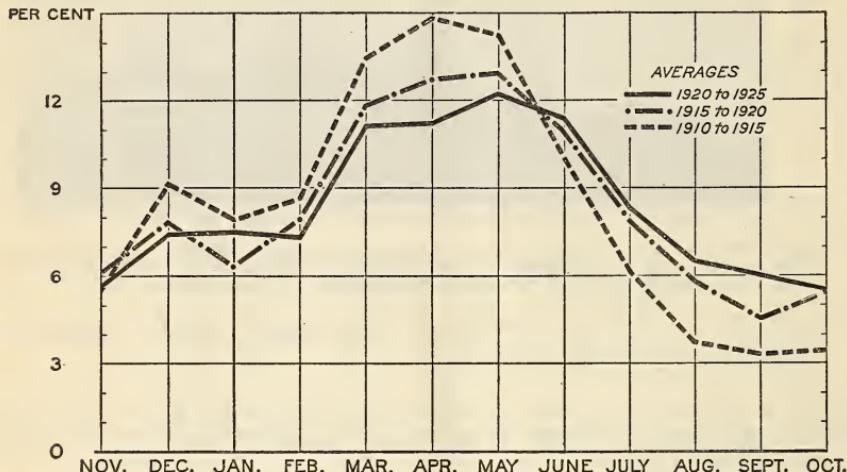


FIG. 3.—SEASONAL MOVEMENTS OF CITRUS FRUIT BY CALIFORNIA FRUIT GROWERS EXCHANGE. (FIVE-YEAR AVERAGE PERCENTAGES OF ANNUAL SHIPMENTS MOVED MONTHLY)

The relatively large quantities of citrus fruit shipped during the months of March, April, and May in the years 1910 to 1915 have been reduced with the increase in shipments of Valencia oranges. The increase in this variety of citrus fruit has resulted in larger relative quantities being shipped during June, July, August, September, and October.

increases, the sales organization has the smallest quantity of citrus fruit to sell. It would appear, on the basis of the figure presented, that a sales force designed to merchandise the volume of citrus fruit moving during the high seasonal peak of the spring months must still be maintained during a portion of the year when citrus-fruit shipments are relatively light as compared with the movement during the peak months of the year. It would seem then that there still exists a condition favorable to the handling of other commodities during part of the year when citrus-fruit shipments are relatively lowest.

NATURE OF DISTRIBUTION OF CITRUS AND DECIDUOUS FRUITS THROUGH SALES ORGANIZATION OF THE CALIFORNIA FRUIT GROWERS EXCHANGE

The aggregate effect of the deciduous and citrus-fruit movement through the sales organization of the California Fruit Growers Exchange is presented graphically in Figure 4. Auction and private sales of citrus and deciduous fruits have been combined in this chart to show how the deciduous-fruit sales tend to build up a more uniform level of sales throughout the year. A study of the five and one-half years' business presented here would seem to indicate that without the deciduous-fruit business in at least three of the five years, 1922, 1924, and 1925, the sales force would have had its larger volume of business very definitely in the first six months of each year. Sales volumes would have been very much reduced in the latter six months. This is particularly true in the short crop years, 1922 and 1925.

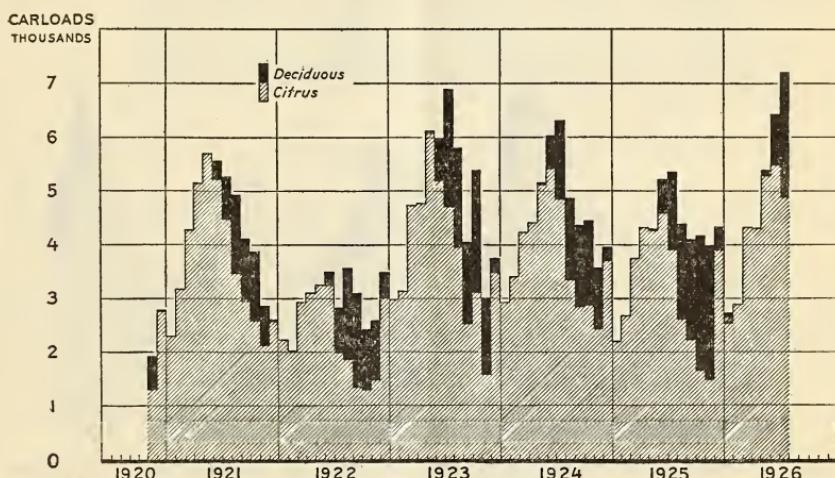


FIG. 4.—CITRUS AND DECIDUOUS FRUITS SOLD IN THE UNITED STATES AND CANADA THROUGH SALES OFFICES OF THE CALIFORNIA FRUIT GROWERS EXCHANGE

This figure illustrates the way in which the handling of deciduous fruit tends to maintain a somewhat more uniform rate of sales throughout the year. This is indicated clearly in the years 1922 and 1925, both short citrus-crop years.

It would appear, in all five of the years, that the effect of handling deciduous fruit has been to level out the load of the year's business to a greater extent than would have been the case had citrus fruit been the only kind to be sold. It is reasonable to believe that a sales force organized to handle the peak load of citrus business occurring during the spring months will function to better advantage during the months when less citrus fruit is moving if there is a sufficient load of fruit to be sold. This additional load is furnished by the deciduous fruit.

SALE OF DECIDUOUS FRUIT IN PRIVATE-SALES AREAS

The aggregate sales of both citrus and deciduous fruits through the various private-sales offices and brokerage offices of the California Fruit Growers Exchange are shown in Figure 5. It appears that

without the deciduous-fruit business in 1924 and 1925 the volume of business transacted through these district and broker offices during the months of August, September, October, and November would have been in all probability materially below the selling capacity of the sales force, unless the sales force had been inadequate to care for the large volumes of citrus fruit moving during the months of March, April, May, and June. Apparently, however, the sales force was adequate, and the organization was equipped to care for the large volumes of citrus fruit to be sold during the four months, March to June. This being the case, it would appear that the addition of the deciduous fruit does not overload the sales force during the period of deciduous-fruit sales. This conclusion is strengthened by the fact, discussed in detail later, that about 95 per cent of the purchasers of deciduous fruit were also purchasers of citrus fruit, so that in selling

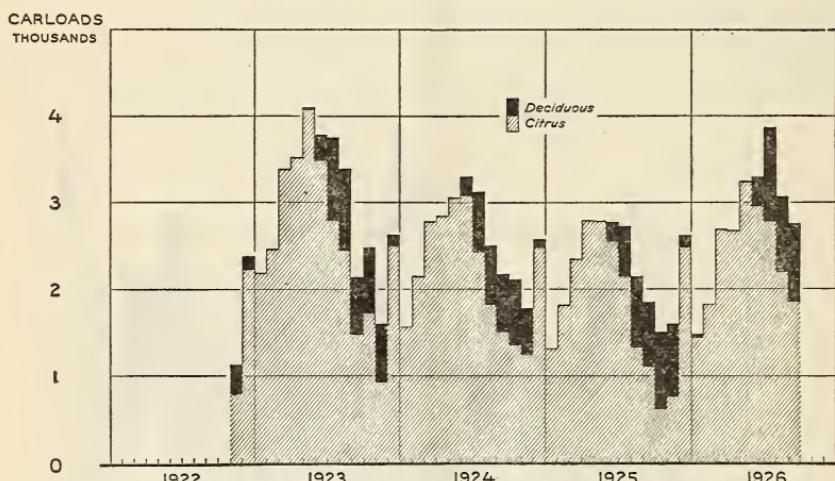


FIG. 5.—CITRUS AND DECIDUOUS FRUITS SOLD AT PRIVATE SALE, NOVEMBER, 1922-SEPTEMBER, 1926

The handling of deciduous fruit through the private-sales offices of the California Fruit Growers Exchange resulted in the maintenance of a more uniform rate of sales throughout the year than would have been the case had citrus fruit been sold exclusively.

deciduous fruit the sales force was dealing with the same members of the trade to whom citrus fruit was sold.

Because of variation in the quantities of deciduous fruit sold in individual private-sales districts, a graphic analysis was made of the monthly sales of citrus and deciduous fruits in the 42 private-sales districts where salaried employees represent the California Fruit Growers Exchange. The period between November, 1920, and July, 1926, was selected for this analysis. The figures for each of the sales districts were shown graphically in a manner similar to those of district A in Figure 6. From these charts it was possible to determine how the selling of deciduous fruit had combined with the sale of citrus fruit to produce a tendency either toward leveling out the year's business or toward producing high peaks of business through deciduous-fruit movement simultaneous with heavy movement of citrus fruit. It appeared that in 20 of the districts deciduous-fruit

sales were helpful in bringing about a somewhat more level rate of sales throughout the year. The district for which sales are shown in Figure 6 is fairly representative of these 20 districts.

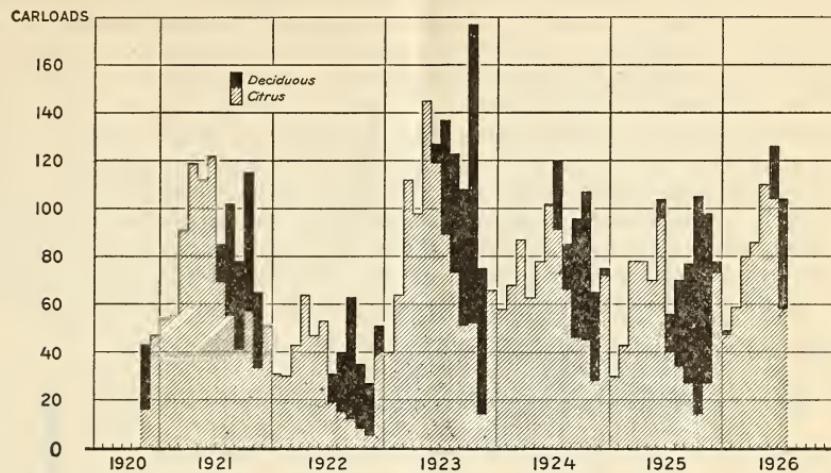


FIG. 6.—CITRUS AND DECIDUOUS FRUITS SOLD THROUGH DISTRICT OFFICE A, NOVEMBER, 1920-JULY, 1926

The handling of deciduous fruit through district office A resulted in the maintenance of a more uniform rate of sales throughout the year, in all years shown in the figure, than would have been the case had citrus fruit been handled exclusively.

In 16 of the districts the volume of deciduous-fruit business was so distributed throughout the season and was, in most instances, relatively so small that it did not result in either leveling out sales mate-

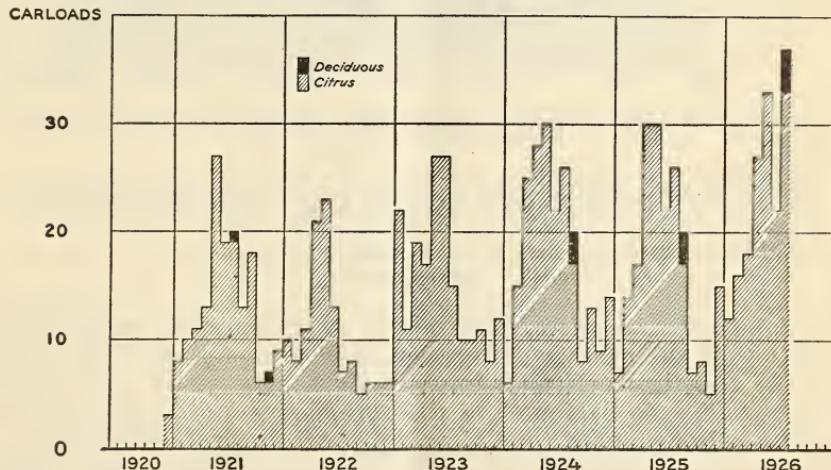


FIG. 7.—CITRUS AND DECIDUOUS FRUITS SOLD THROUGH DISTRICT OFFICE B, DECEMBER, 1920-JULY, 1926

Because of the small quantity of deciduous fruit sold through district office B of the California Fruit Growers Exchange, the handling of deciduous fruit did not materially aid in the maintenance of a more uniform rate of sales throughout the year.

rially or in producing higher peaks of business than resulted from the citrus business alone. Sales of a district illustrative of this group are shown for district B in Figure 7.

In the remaining six district offices, sales of deciduous fruit seemed to add materially to the highest peak of citrus sales. In one of the districts, however, the total volume of business, both citrus fruit and deciduous fruit, was small so that it is not believed that the combined volume was large enough to produce any effects detrimental to the interests of shippers. In Figure 8 are shown sales for district C, which is a representative district of this group. In the data, and in the judgment of the district managers in these markets, there appeared to be no evidence that the quantity of fruit sold through these markets had reached a point where it was detrimental to the citrus fruit shippers' interests. It is believed, however, that particularly close attention should be paid to the future course of deciduous and citrus fruit sales in these districts, and in other districts developing similar characteristics, in order that additional employees may be added when needed to care for the increased business.

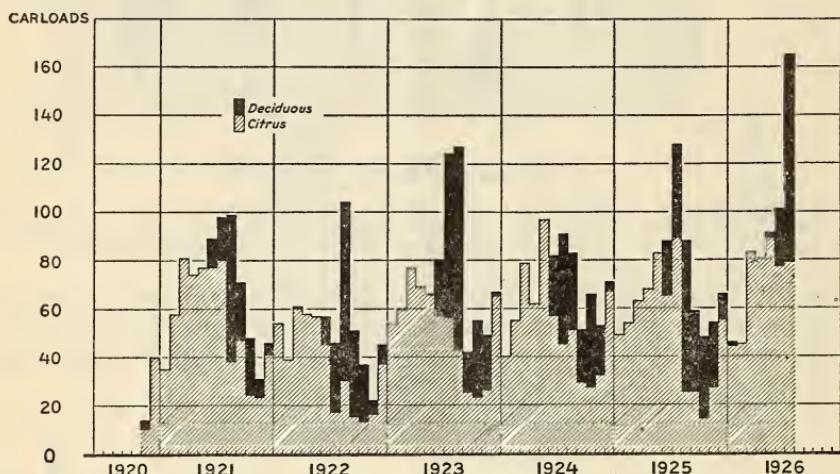


FIG. 8.—CITRUS AND DECIDUOUS FRUITS SOLD THROUGH DISTRICT OFFICE C,
NOVEMBER, 1920-JULY, 1926

The handling of deciduous fruit through district office C of the California Fruit Growers Exchange resulted in the occurrence of high peaks of business because of the heavy sales of citrus and deciduous fruits taking place at the same time.

RESULTS OF QUESTIONNAIRES TO SALES AGENTS REGARDING THE JOINT-SALES ARRANGEMENT

It appeared that one of the sources of information regarding the operation of the agreement between the California Fruit Exchange and the California Fruit Growers Exchange which is distinctly worth while is to be found in the experiences and opinions of the salaried sales agents of the California Fruit Growers Exchange.

Accordingly a questionnaire was mailed to these agents, with a statement that their replies would be held confidential in so far as the identity of the agents expressing the various opinions was concerned. All of the salaried agents replied, together with 4 direct brokers and subbrokers, a total of 55 replies. The questions asked and the number of agents, grouped according to replies, follow.

Question 1.—How are the present grading and packing standards of the California Fruit Exchange regarded by the members of the trade in your district? Answers: Superior, 24; good, 31.

Question 2.—How are the present grading and packing standards of the California Fruit Growers Exchange regarded by members of the trade in your district? Answers: Superior, 21; good, 31; fair, 3.

Question 3.—During the 1924-25 and the 1925-26 seasons, have you had any difficulties with members of the trade regarding grade, pack, or condition of citrus fruit? Answers: Yes, 20; no, 35. Private-sales district agents' replies: Yes, 18; no, 24.

Question 4.—During the 1924-25 and the 1925-26 citrus seasons, have you lost any customer's trade, either partially or completely, through disagreements over citrus-fruit transactions? Answers: Yes, 8; no, 47. Private-sales district replies: Yes, 8; no, 34. Two agents replied that loss of customers' trade had been permanent and six stated that the loss had been partial only.

Question 5.—During the 1925 and 1926 deciduous seasons, have you lost any citrus business through disagreements with the trade over deciduous-fruit transactions? Answers: Yes, 1; no, 54. The loss indicated was partial.

Question 6.—During the 1924-25 and the 1925-26 citrus seasons, have you found the California Fruit Growers Exchange ready to grant allowances on citrus fruit which, in your judgment, were reasonable and fair to the trade? (Specify details of any instance in which you believe allowances should have been made, or in which, if allowances were made, they were not fair to the trade.) Answers: Yes, 50; no, 1; not answering, 4.

Question 7.—During the 1925 and 1926 seasons, have you found the California Fruit Exchange ready to grant allowances on deciduous fruit which, in your judgment, were reasonable and fair to the trade? (Specify details of any instances in which you believe allowances should have been made and were not made, or in which, if allowances were made, they were not fair to the trade.) Answers: Yes, 49; no, 3; not answering, 3.

Question 8.—Is it your judgment that any of the settlements mentioned in questions 6 or 7 were made in such a manner as to be prejudicial to the good will of the California Fruit Growers Exchange? Answers: Private-sales districts: Yes, 2; no, 34; not answering, 6. Both affirmative replies refer to deciduous-fruit transactions.

Question 9.—Indicate by a check mark whether you believe that the handling of deciduous fruit is an advantage or a disadvantage in the sale of citrus fruit in private-sales districts where the total number of cars of citrus and deciduous fruits sold per year is as follows. (Answer this question for only those sizes of districts in which you have had experience.)

Annual sales in district	Replies to question		Annual sales in district	Replies to question	
	Advantageous	Disadvantageous		Advantageous	Disadvantageous
101-300 carloads.....	29		701-1,000 carloads.....		4.....
301-500 carloads.....	13	2	1,001-1,500 carloads.....		3.....
501-700 carloads.....	7	1	Over 1,500 carloads.....		1.....

Replies from six agents indicated that the handling of deciduous fruit was neither an advantage nor a disadvantage, and four agents did not answer the question. The total number of replies is more than the total number of agents because some agents answered for more than a single district.

Question 10.—Is it your experience that the handling of deciduous fruit is of advantage in selling citrus fruit during the season when deciduous fruit is being sold? What are the reasons for this conclusion? Answers: Yes, 39; no, 14; not answering, 2.

Question 11.—Is it your experience that the handling of deciduous fruit is an advantage in selling citrus fruit during the season when deciduous fruit is not being sold? What are the reasons for this conclusion? Answers: Yes, 31; no, 18; not answering, 6.

Question 12.—Has the sale of deciduous fruit through your office any effect detrimental to the sale of citrus fruit? (Specify your reasons.) Answers: Yes, 2; no, 52; not answering, 1. Private-sales agents' replies: Yes, 2; no, 40.

Question 13.—(a) If the handling of deciduous fruit through your district office were discontinued, have you reason to believe that it would be possible to sell citrus fruit at private sale during the deciduous season at an increase in price? (State your reasons briefly.) Answers: Yes, 2; no, 52; not answering, 1.

(b) If the sales of deciduous fruit were discontinued, would you be able to sell more citrus fruit in your district? Answers: Yes, 6; no, 49. In several of the affirmative answers to this question considerable doubt was expressed as to whether or not this could be accomplished.

Question 14.—If you were not selling deciduous fruit would you keep in touch with the deciduous-fruit purchases of your customers because of any effect which these deciduous purchases might have on citrus sales? Answers: Yes, 40; no, 14; not answering, 1.

Question 15.—Do you find that knowledge of the deciduous-fruit operations of the members of the trade to whom you sell citrus fruit is helpful in arriving at conclusions regarding their credit standings when you are selling them citrus fruit? Answers: Yes, 38; no, 16; not answering, 1. Private-sales agents' answers: Yes, 26; no, 15; not answering, 1.

Question 16.—From the standpoint of efficient selling of citrus fruit, is it your judgment that the handling of the deciduous fruit of the California Fruit Exchange should be discontinued by the California Fruit Growers Exchange at auction? at private sale? Answers: All of the auction agents stated that they did not believe that the handling of deciduous fruit of the California Fruit Exchange at auction should be discontinued by the California Fruit Growers Exchange. Of the 42 private-sales agents, 3 believed that the handling of deciduous fruit should be discontinued, and 39 believed that it should be continued. The total replies of all agents regarding the handling of deciduous fruit in private-sales areas are as follows: For discontinuance, 3; for continuance, 52.

All but three district managers and brokers replying to this questionnaire were in favor of the handling of deciduous fruit. District managers expressed the opinion repeatedly in the course of the survey that during the fall months of the year, and especially during short crop years, if it were not for deciduous fruit, they would have little to do. From the standpoint of the morale of the sales force, the deciduous-fruit business has a definite value to the citrus business through its tendency toward building up the volume of sales during the fall months.

SALES ADVANTAGES RESULTING FROM THE JOINT-SALES AGREEMENT

EXTENT TO WHICH PURCHASERS OF CITRUS AND DECIDUOUS FRUITS ARE IDENTICAL

Reference has been made already to the collection of customer data in private-sales areas. It was believed that, through study of a representative group of customers, certain conclusions might be developed regarding the purchase of citrus and deciduous fruits, which would have a bearing on the sales advantages or disadvantages accruing from the joint use of the sales organization.

In collecting these purchaser data, a firm that operates branch houses was counted as a separate customer at each point where a branch was located. The number of customers shown in the various tables will, therefore, be larger than the number in records based upon absolute ownership of the various businesses. This step was considered necessary because of the intricate ownership relationships sometimes found in the fruit-jobbing business.

The purchase records of citrus and deciduous fruits of 1,022 customers were compiled for the year 1923. Records of 1,055 customers for 1924 and of 987 for 1925 were also assembled. In Table 5 are indicated the percentage relationships of purchases of citrus and deciduous fruits at private sale in selected markets by groups of customers classified according to their annual purchases of citrus fruit.

The relative quantities of deciduous fruit purchased by groups of customers buying various quantities of citrus fruit are significant.

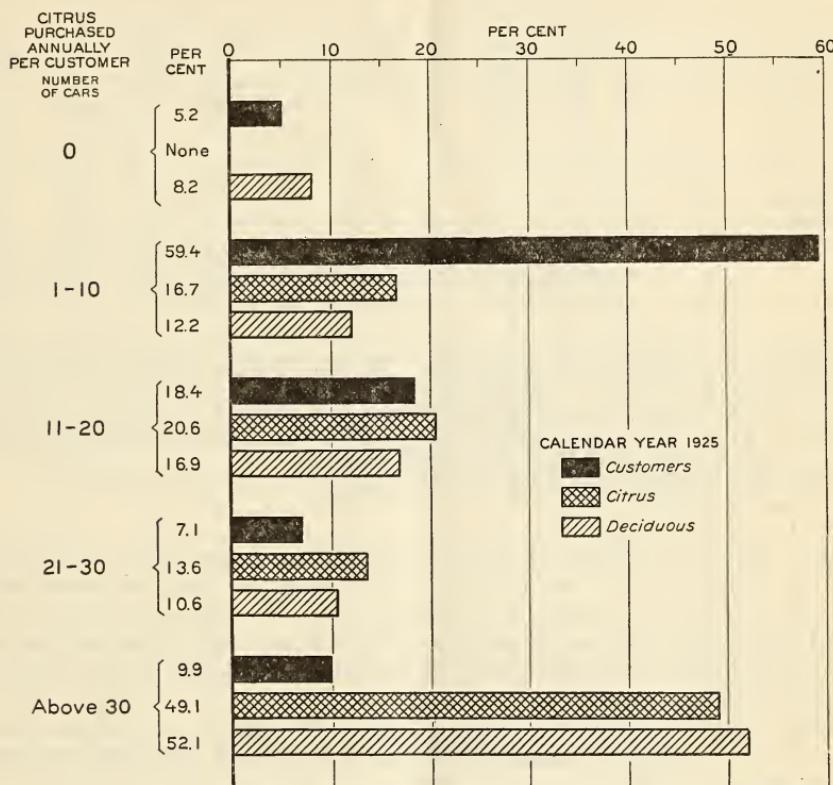


FIG. 9.—PERCENTAGE OF TOTAL CARS OF CITRUS AND DECIDUOUS FRUITS PURCHASED AT PRIVATE SALE BY GROUPS OF CUSTOMERS, 1925

Purchases of citrus and deciduous fruits during the year 1925, by customers of the California Fruit Growers Exchange in representative private-sales areas form the data on which this figure is based. Business firms operating branch houses were counted as a separate customer at each point where a branch was located. These customers purchased 13,175 cars of citrus fruit and 3,000 cars of deciduous fruit in 1925.

The data for 1925, given in Table 5, are presented in graphic form in Figure 9. Reference to Table 5 will show, despite the variation in districts included for each of the three calendar years, that there were no material differences from year to year in the quantities of citrus and deciduous fruits purchased by the various groups of customers, so that the calendar year 1925 may be as satisfactory for study as either of the other two years.

TABLE 5.—*Purchases of citrus and deciduous fruits at private sale by groups of customers classified according to their total annual purchases of citrus fruit, calendar years 1923–1925*¹

Annual citrus-fruit purchases per customer	Percentage of total customers in group			Percentage of total citrus fruit purchased by each group of customers			Percentage of total deciduous fruit purchased by each group of customers		
	² 1923	³ 1924	⁴ 1925	² 1923	³ 1924	⁴ 1925	² 1923	³ 1924	⁴ 1925
Less than 1 car	5.4	4.4	5.2	(5)	(5)	(5)	10.7	7.5	8.2
1 to 10 cars	52.1	57.4	59.4	11.5	15.4	16.7	6.3	8.7	12.2
11 to 20 cars	18.1	17.7	18.4	15.4	17.4	20.6	14.4	13.3	16.9
21 to 30 cars	8.3	8.3	7.1	11.7	13.9	13.6	14.2	13.4	10.6
31 to 40 cars	5.9	4.5	3.3	11.1	10.9	8.8	9.8	11.3	9.8
41 to 50 cars	2.9	2.2	1.4	7.5	7.0	4.8	8.2	4.8	5.9
51 to 60 cars	1.7	1.2	1.3	5.4	4.5	4.9	6.1	5.0	6.9
61 to 70 cars	1.2	.8	.9	4.2	3.4	4.4	5.6	2.6	3.6
71 to 80 cars	.4	.9	.6	1.7	4.3	3.5	.5	7.2	3.4
81 to 90 cars	.9	.4	.4	4.1	2.2	2.6	2.6	1.5	.4
91 to 100 cars	.5	.4	.8	2.6	2.5	5.7	2.1	4.0	9.1
Above 100 cars	2.6	1.8	1.2	24.8	18.5	14.4	19.5	20.7	13.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Basic totals by groups	Number 1,022	Number 1,055	Number 987	Cars 18,381	Cars 15,659	Cars 13,175	Cars 3,023	Cars 2,568	Cars 3,000

¹ Purchasers operating branch houses were counted as a separate purchaser at each point where a branch was located. Records of purchases were based on car-lot sales only. Cars sold to several purchasers were not included when listed as sold to "various buyers."

² The following private-sales areas are included in the 1923 data: Albany, Atlanta, Baltimore, Buffalo, Chicago, Cincinnati, Cleveland, Columbus, Denver, Detroit, Fort Worth, Grand Rapids, Hartford, Indianapolis, Kansas City, Memphis, Milwaukee, Minneapolis, Peoria, Pittsburgh, Providence, Richmond, Scranton, Sioux City, St. Louis, Syracuse, and Wichita.

³ For the year 1924, Omaha and Oklahoma City districts were added to those shown for 1923.

⁴ For the year 1925, Louisville was added to the cities indicated in ² and ³.

⁵ Less than 0.05 per cent.

It is shown in Figure 9 that the group of citrus-fruit customers buying from 1 to 10 cars of citrus fruit per year per customer and constituting 59.4 per cent of the total group of customers, purchased but 16.7 per cent of the citrus fruit and 12.2 per cent of the deciduous fruit bought by the entire group of customers included in the survey of these sales districts.

The group of customers buying from 11 to 20 cars of citrus fruit per year per customer constituted 18.4 per cent of the total number of customers in the group and purchased 20.6 per cent of the total citrus fruit and 16.9 per cent of the total deciduous fruit.

The group of customers buying from 21 to 30 cars of citrus fruit per year per customer constituted 7.1 per cent of the total group of customers. This group bought almost as much citrus and deciduous fruit as the much larger group of customers each of whom bought from 1 to 10 cars per year.

Customers purchasing over 30 cars of citrus fruit per year constituted but 9.9 per cent of the total group of customers and purchased 49.1 per cent of the total amount of citrus fruit and 52.1 per cent of the total amount of deciduous fruit.

These data appear to bear out the contention that, from the standpoint of quantities purchased, the best deciduous-fruit customers are also the best citrus-fruit customers. From a merchandising standpoint, it is desirable for the citrus-fruit salesman to be in a position to supply the deciduous-fruit needs of his most valuable customers. This conclusion arises from the fact that these dealers are handlers

of both deciduous and citrus fruits and will undoubtedly purchase deciduous fruit from other sources if unable to secure it through agents of the California Fruit Growers Exchange.

If it becomes necessary for these customers to establish brokerage or other connections for the purchase of deciduous fruit, there is a likelihood that the salesmen will lose contact with them to a certain extent during that portion of the year when deciduous fruit is in demand. There is the additional possibility of customers forming trade connections which will result in purchase of citrus fruit through the same distribution channels as those by which deciduous fruit is obtained. Proof of this position is to a great extent impossible, but it appears to be entirely reasonable as it involves a part of the group of customers purchasing the larger portion of citrus fruit sold at private sale.

From a sales standpoint the extent to which the purchasers of citrus and deciduous fruits are identical is important when the question of the joint handling of citrus and deciduous fruits by citrus sales agents is considered. It would appear that if any considerable volume of deciduous fruit were sold by the agents to purchasers who did not also purchase citrus fruit, it would follow that the sales agents were spending time and effort in the development of business which was entirely apart from the citrus business. Such a situation would be a valid argument, from the viewpoint of the citrus growers' interests, against the handling of deciduous fruit. But analysis of the customer data did not indicate that this was the case.

Of the total number of purchasers in 1923, 5.4 per cent purchased deciduous fruit only; in 1924, 4.4 per cent; and in 1925, 5.2 per cent (Table 5). The remainder of the customers were purchasers of citrus fruit in varying quantities, but not all of them were purchasers of deciduous fruit.

Of the customers purchasing only deciduous fruit the greater number were not regular customers but came into the market only for a single car of deciduous fruit during the season. This situation is more definitely shown in Table 6, where the number of deciduous-fruit customers is shown, grouped according to the number of cars purchased, for the calendar years 1923, 1924, and 1925.

TABLE 6.—*Customers purchasing deciduous fruit only, grouped according to the number of cars bought annually, 1923–1925*¹

Deciduous fruit purchased annually per customer	Numbers of customers purchasing indicated number of cars of deciduous fruit			Deciduous fruit purchased annually per customer	Numbers of customers purchasing indicated number of cars of deciduous fruit		
	1923	1924	1925		1923	1924	1925
1 car.....	28	20	19	8 cars.....		1	1
2 cars.....	9	13	8	9 cars.....		1	1
3 cars.....	7	1	7	10 cars.....		1	
4 cars.....	2	4	2	11 to 20 cars.....		3	3
5 cars.....		1	5	Over 20 cars.....		3	1
6 cars.....	1	1	3				1
7 cars.....			2	Total.....	55	46	51

¹ The sales districts included in these figures for the various years are the same as those shown in Table 5, 2, 3, and 4.

Over one-half of the customers who are not purchasers of citrus fruit buy from one to two cars of deciduous fruit per year. From statements of district managers, it is believed that these customers who buy deciduous fruit generally are not potential purchasers of citrus fruit, and no special efforts are made to develop this business. It is, therefore, doubtful whether this feature of the business is detrimental to the interests of citrus-fruit growers from the standpoint of agents' time or other considerations which might be raised.

As a result of this portion of the survey it is evident that, in the sales districts included, almost 95 per cent of the customers are purchasers of citrus fruit and that the handling of the business of the remaining 5 per cent who purchase deciduous fruit only is probably not detrimental to the interests of citrus growers.

All citrus-fruit purchasers are not purchasers of deciduous fruit, however. This is indicated in Table 7, where figures for the calendar year 1924 are presented.

TABLE 7.—*Distribution of customers of the California Fruit Growers Exchange in selected private-sales areas, according to purchases of citrus and deciduous fruits, calendar year 1924*¹

Citrus fruit purchased annually per customer	Number of customers in each citrus size-group purchasing the indicated number of cars of deciduous fruit annually					Total number of customers purchasing deciduous fruit only	Total number of customers purchasing citrus and deciduous fruits
	0 cars	1-10 cars	11-20 cars	21-30 cars	Over 30 cars		
Less than 1 car		42	3			1	46
1 to 10 cars	539	64	2	1			67
11 to 20 cars	100	81	4	1	1		87
21 to 30 cars	33	46	6	1	1		54
Over 30 cars	28	54	28	8	11		101
Total	700	287	43	11	14	46	309

¹ The sales districts included in these data are the same as those indicated in Table 5, ² and ³.

The distribution of purchasers in Table 7 is as follows: Seven hundred purchased citrus fruit only; 46 purchased deciduous fruit only; and 309 purchased both citrus and deciduous fruits. Customers purchasing the larger amounts of citrus are also the heavier purchasers of deciduous fruit. Thus, the more important citrus-fruit customers are shown to be the more important purchasers of deciduous fruit.

From the standpoint of selling efficiency it would seem that it is to the interest of citrus-fruit shippers for their salesmen to be able to meet the demands of these customers for both deciduous and citrus fruits rather than to allow them to form other trade connections which might lead to their purchasing citrus fruit also from sources other than the California Fruit Growers Exchange. There is an additional advantage to the citrus shipper arising from the handling of deciduous fruit by his sales agents. The handling of deciduous fruit during its season permits more frequent contacts with customers than would be the case if citrus fruit were handled exclusively. From this standpoint it would appear that the handling of deciduous fruit is of advantage to the citrus-fruit shipper. The reverse of

this situation is also true. Consequently, joint handling of citrus and deciduous fruits is of mutual advantage in the sale of both groups of fruit.

CHANGES IN THE CUSTOMER LIST AND REASONS ASSIGNED

As a further measure of the effectiveness of the policy of joint handling of citrus and deciduous fruits in retaining customers and as an indicator of the relative importance of the customers who purchase through periods of different lengths, the customer group from selected private-sales areas was divided according to the length of time each customer had purchased citrus fruit during the period studied. The time periods selected were one year only, 1923, 1924, or 1925; two nonconsecutive years, 1923 and 1925; two consecutive years, 1923 and 1924 or 1924 and 1925; and three consecutive years, 1923, 1924, and 1925. The number of cars of citrus and deciduous fruits purchased by each of these subgroups of customers during the three-year period, 1923-1925, was determined, and percentages of the total purchases by the entire private-sales group were calculated. These figures are presented in Table 8.

TABLE 8.—*Citrus-fruit customers in private-sales areas,¹ classified by continuity of purchase for the three-year period, 1923-1925*

Length of time purchasing	Percentage of total citrus fruit sold to entire group of customers during three-year period	Percentage of total deciduous fruit sold to entire group of customers during three-year period
One year only.....	2.2	1.8
Two nonconsecutive years.....	.3	
Two consecutive years.....	6.7	7.7
Three years.....	90.8	84.3
Total.....	100.0	² 93.8

¹ Private-sales districts included are: Albany, Atlanta, Baltimore (outside), Buffalo, Cincinnati (outside), Cleveland (outside), Columbus, Denver, Detroit, Fort Worth, Grand Rapids, Hartford, Indianapolis, Kansas City, Memphis, Milwaukee, Minneapolis, Peoria, Pittsburgh (outside), Providence, Richmond, Scranton, Sioux City, St. Louis (outside), Syracuse, and Wichita.

² The remaining 6.2 per cent of deciduous-fruit sales were made to customers who purchased no citrus fruit during the three-year period.

Almost 91 per cent of the total citrus fruit sold to these customers was purchased by those who traded continuously with the California Fruit Growers Exchange throughout the three-year period. Over 84 per cent of the deciduous fruit was purchased by customers who traded with the exchange throughout the three-year period. The significance of the high percentage of citrus fruit purchased by the three-year customers is emphasized when the reasons assigned by the district managers for the changes in the group of customers are studied.

In the private-sales areas, the district managers were asked to state the reasons for the loss of each customer. In Table 9 these reasons are given, together with the number of customers to which they are applicable. This table presents an analysis of the con-

tinuity of purchase for the three-year period, 1923-1925, and the reasons given for loss of customers.

The number of citrus-fruit customers in 1923 was taken as a starting point for this tabulation.

TABLE 9.—*Citrus-fruit customer groups in private-sales areas,¹ analyzed according to continuity of purchase for the three-year period, 1923-1925*

Customer group	Customers in 1923		Citrus-fruit purchases in 1923		Deciduous-fruit purchases in 1923	
	Number 624	Per cent 69.6	Cars 13,908	Per cent 90.6	Cars 2,444	Per cent 93.0
Customers purchasing throughout the three-year period-----						
Customers lost or not buying directly from district office during 1924 or 1925, or during both 1924 and 1925:						
Buying less than carload lots or at auction-----	89	10.0	405	2.6	36	1.4
Wholesale grocers and other small operators ² -----	78	8.7	203	1.3	17	.6
Out of business or poor credit-----	70	7.8	526	3.4	91	3.5
Buying from competitors-----	9	1.0	116	.8	22	.8
Buying from exchange through a service company-----	6	.7	139	.9	19	.7
Exchange subbrokers discontinued-----	2	.2	26	.2	0	0
Transferred to other sales districts-----	9	1.0	22	.1	0	0
Unaccounted for-----	9	1.0	15	.1	0	0
Total-----	896	100.0	15,360	100.0	2,629	100.0

¹ Private-sales areas included are as follows: Albany, Atlanta, Baltimore (outside), Buffalo, Cincinnati (outside), Cleveland (outside), Columbus, Denver, Detroit, Fort Worth, Grand Rapids, Hartford, Indianapolis, Kansas City, Memphis, Milwaukee, Minneapolis, Peoria, Pittsburgh (outside), Providence, Richmond, Scranton, Sioux City, St. Louis (outside), Syracuse, and Wichita.

² This customer group consisted principally of those who bought one car per year for holiday trade. Many of these purchased citrus fruit only at times of low prices and were not continuous handlers of fruit.

In the calendar year 1923 there were 896 citrus-fruit customers listed on the books of the 26 district sales offices whose customers are included in the tabulation. A study of the figures presented in Table 9 indicates that, on the basis of reasons assigned by district managers for changes in the customer list, only about 0.8 per cent of the total citrus-fruit sales made to this group in 1923 might possibly be considered as lost through disagreements over deciduous fruit or other transactions. No indications were found, however, which pointed to a conclusion that disagreements over deciduous fruit had had any appreciable part in the loss of citrus-fruit business.

Customers who purchased citrus fruit continuously through the exchange for the three-year period constituted 69.6 per cent of the total 896 customers and purchased 90.6 per cent of the total number of cars of citrus and 93 per cent of the total number of cars of deciduous fruits sold to the entire group of 896 customers during the calendar year 1923. Of the purchasers of the remaining 7 per cent of deciduous fruit in 1923, enough had gone out of business or had become such poor business risks that this group accounted for 3.5 per cent. With the exception of the 0.8 per cent citrus business lost to competitors it was the general opinion of the district managers that the remainder of the citrus business was still retained by the California Fruit Growers Exchange through purchasers buying at auction, splitting cars with other purchasers of exchange citrus fruit, or receiving exchange citrus fruit from other branches of the group with which they are affiliated.

DISAGREEMENTS OVER DECIDUOUS-FRUIT TRANSACTIONS AND CONSEQUENT LOSS
OF TRADE

Study in 30 private-sales areas did not disclose the entire loss of any citrus customer's business because of disagreement over deciduous-fruit transactions during the period 1923-1926. This conclusion is based on a study of all individual-customer records in these 30 private-sales areas, together with the district sales agent's statement of reasons for any marked decrease in the volume of citrus-fruit purchases in all cases. The conclusion from this phase of the study is important, since it would seem that the opinion that the deciduous-fruit business is conducive to severe disagreements with customers of the California Fruit Growers Exchange is, at present, not well founded.

Fifty-one salaried agents and four brokers answered the questionnaire sent out by the Division of Cooperative Marketing. One question was directed toward finding out whether, during the 1925 and the 1926 deciduous-fruit seasons, any citrus-fruit business had been lost as a result of disagreements with members of the trade over unsatisfactory deciduous-fruit transactions. Of the 55 representatives replying, 1 stated that he had partially lost the citrus-fruit business of one customer because of a disagreement over a deciduous-fruit sale.

This portion of the study leads to the conclusion that loss of citrus-fruit business which can be attributed to disagreements over deciduous-fruit transactions is slight and of little weight during the periods covered by field work of the department's representatives and by questionnaires.

CITRUS-FRUIT MOVEMENT IN MARKETS WITH RELATION TO DECIDUOUS-FRUIT SALES

It seemed desirable to determine, if possible, from the sales data in markets where little deciduous fruit was sold, whether there was any tendency toward a greater portion of the year's citrus business being transacted during the period when deciduous fruit was being sold than in markets where the agents' time was more evenly divided between citrus and deciduous fruits.

The effect of competition from citrus-fruit areas other than California in the eastern markets where deciduous-fruit sales are heavy seemed to exclude the possibility of making direct comparison with them. It seemed proper to select markets where there was no extensive citrus-fruit competition other than that arising from California citrus-fruit shippers.

For this purpose seven sales districts in the western portion of the United States and Canada were selected as districts with relatively small sales of deciduous fruit. During the year 1924 the combined sales of citrus fruit in these seven districts totaled 3,936 cars, and deciduous-fruit sales totaled 55 cars. Thus slightly less than 1.4 per cent of the total yearly sales were of deciduous fruit.

Four districts in the same general territory were selected because of the relatively larger volume of deciduous-fruit business. Citrus-fruit sales in these districts totaled 1,183 cars, in 1924, and deciduous-fruit sales totaled 228 cars. Deciduous-fruit sales were therefore 16.2 per cent of the total yearly sales in these four districts, as com-

pared with 1.4 per cent in the group where little deciduous fruit was sold.

Comparison was also made between these two groups and a group of seven eastern markets, where deciduous-fruit sales totaled 853 cars of a total annual volume of 4,797 cars, or 17.8 per cent of the total. The results of these comparisons are presented in Table 10.

In the districts where little deciduous fruit is sold by the agents of the California Fruit Growers Exchange, the district managers have been no more successful, if as successful, in making sales volume during the second six months of the year more nearly approximate sales volume during the first six months of the year. As a matter of fact, during the year 1924 the seven markets with the small amount of deciduous-fruit sales made only 39.4 per cent of their citrus-fruit sales following June, whereas comparable markets in the same area that sell a quantity of deciduous fruit sold relatively more citrus fruit during the same six months.

It would appear then that in those districts where sales agents had been free, or practically so, from the selling of deciduous fruit, they have not been able to demonstrate that any greater volume of citrus fruit could be sold because deciduous fruit was not handled. As a matter of fact, on the basis of the limited data here presented, it would seem that these agents have not done as well and that there was a possibility that in the other markets the sale of deciduous fruit had actually helped the sale of citrus fruit.

TABLE 10.—*Percentage of total sales of citrus fruit made each month in various groups of private-sales districts, calendar year 1924*

Month	Percentage of annual sales of citrus fruit made each month in seven western districts	Percentage of annual sales of citrus fruit made each month in four western districts	Percentage of annual sales of citrus fruit made each month in seven eastern markets where deciduous fruit is sold in quantity
January.....	7.4	7.1	6.2
February.....	9.2	7.5	8.5
March.....	11.0	10.6	11.5
April.....	12.5	8.4	8.9
May.....	10.8	9.1	11.8
June.....	9.7	12.4	12.8
Total.....	60.6	55.1	59.7
July.....	8.7	10.9	9.5
August.....	5.1	8.4	7.6
September.....	6.0	6.7	4.8
October.....	5.7	4.8	5.2
November.....	5.5	5.6	4.6
December.....	8.4	8.5	8.6
Total.....	39.4	44.9	40.3

ATTITUDE OF CUSTOMERS OF CALIFORNIA FRUIT GROWERS EXCHANGE TOWARD THE JOINT-SALES ARRANGEMENT

Fifty-eight members of the trade were questioned regarding their relations with the California Fruit Growers Exchange and the California Fruit Exchange. These were representative members of

the trade, 12 of whom purchase from 1 to 10 cars of citrus fruit annually, 11 who purchase from 11 to 20 cars, 11 who buy from 21 to 30 cars, 4 who buy from 31 to 40 cars, 6 who buy from 41 to 50 cars, and 14 who buy over 50 cars.

Various opinions were expressed, but it was evident that no objection was being raised to the joint handling of deciduous and citrus fruits. From the viewpoint of the trade, the arrangement was satisfactory. There was reason to believe that a true reaction was obtained regarding this point, since no reticence whatever was found on the part of members of the trade in discussing circumstances in which they felt that one or the other association had been unfair in its adjustment of differences arising between the purchaser and the association.

It should be said that, in those instances where a difference of opinion had arisen between the customer and either of the associations, the customer was frank to state that he felt it was the association rather than the agent who was responsible. This consideration seems of more than passing importance, because it bears out the statement of some district managers that members of their trade distinguish between the agent acting in his capacity as a salaried representative of the California Fruit Growers Exchange and as a representative of the California Fruit Exchange. Apparently the identity of each organization was separate in the minds of the customers interviewed.

This phase of the study was carried only far enough to find that the opinions of the members of the trade were rather uniform regarding the joint-sales arrangement. In so far as members of the trade were concerned the arrangement was satisfactory.

COST OF MAINTENANCE ADVANTAGES RESULTING FROM THE JOINT-SALES AGREEMENT

Besides the effective utilization of the citrus-fruit sales organization, resulting from the more uniform volume of sales through the sale of deciduous fruit, additional sales advantages have been discussed in connection with data indicating that the purchasers who bought large quantities of deciduous fruit were also purchasers of citrus fruit in quantity, and that the more frequent contacts with the trade arising from the handling of both citrus and deciduous fruits were of advantage to the growers of both associations.

These considerations are not sufficient to justify the joint arrangement unless the cost to each association for the services rendered is lower than would be the case if the California Fruit Growers Exchange sold citrus fruit exclusively and the California Fruit Exchange made other equally satisfactory arrangements for the sale of its members' fruit, either through another sales agency or by operating its own sales organization.

The cost to the California Fruit Growers Exchange for the maintenance of its sales organization is materially reduced because of the arrangement with the California Fruit Exchange. The seasonal character of the citrus business requires at present a sales organization designed to handle the peak movement of citrus fruit, which occurs during the months when deciduous fruit is not being shipped in quantity. When the citrus-fruit peak has passed, several months

follow in which citrus-fruit sales are probably not sufficient to justify the maintenance of so large a selling force. This sales organization is able, therefore, with relatively few adjustments, to care for the business of the California Fruit Exchange as now constituted. The result is a reduction in selling cost to the citrus-fruit shippers, arising from the joint support of the sales organization by the two associations.

The effect of the joint arrangement upon the cost of selling to the California Fruit Exchange is involved with a number of considerations, some of which are difficult to evaluate. It may be stated, however, that it is not probable that this association would find the maintenance of an all-year salaried sales organization of the extent and caliber of the sales organization of the California Fruit Growers Exchange to be justified from a cost standpoint.

CONCLUSIONS REGARDING JOINT USE OF A SALES ORGANIZATION

From the study of this sales arrangement and its effective operation, it appears that there are certain outstanding requirements which other associations must meet if such a joint-selling arrangement is to be carried out successfully.

Commodities of both associations should be sold to the same members of the trade.—If such a joint-sales arrangement is to be satisfactory to the associations entering into the agreement, it appears that the commodities to be sold through the joint-sales organizations should be handled by the same members of the trade. Otherwise a much larger group of trade contacts must be developed and maintained by the sales force. If the commodities are sold to the same members of the trade, the necessity for the maintenance of this larger group is eliminated, and the desirable result of more frequent contact with trade members is brought about through the several lines of related commodities handled by one sales organization. With circumstances similar to those surrounding the sales agreement between the California Fruit Growers Exchange and the California Fruit Exchange, it is obviously desirable that the sales force should not be required to develop new contacts for the distribution of deciduous fruit, since the sales organization is primarily a citrus-fruit marketing agency. The buying requirements of many of the customers of the California Fruit Growers Exchange are more nearly met through the handling of both citrus and deciduous fruits by the same sales organization. In so far as this is accomplished, customers of the California Fruit Growers Exchange do not find it necessary to establish new buying contacts to supply their needs for citrus and deciduous fruits.

Cooperation should exist between the associations.—A high degree of cooperation should exist between the two association managements in order that the interests of the shippers of both associations may be fully protected. The agreement between the California Fruit Exchange and the California Fruit Growers Exchange contains a provision that the direction and supervision of the sales force of the California Fruit Exchange shall not be, in any manner, to the detriment, inconvenience, or injury of the California Fruit Growers Exchange (section IV of the agreement). This provision, however, without a high sense of the cooperative attitude required on the part

of both managements, would be inadequate to carry on successfully the operation of such a joint-sales arrangement. There is required an ability and a willingness on the part of each management to evaluate its own contemplated action, not only with relation to the interests of its own shippers, but also in the light of the interests of the shippers of the other organization.

High standards of grading and packing are necessary.—To reduce to a minimum the possibilities of friction through disagreements arising from the sale of the commodities of two or more associations by a joint-sales organization to the same members of the trade the associations should employ the highest standards of grading and packing.

An understanding of the arrangement and its operation by the members of each association is necessary.—In order that the members of both organizations may feel that their individual interests are protected under a joint-sales arrangement, a thorough understanding of the arrangement and the general principles and effects of its operation are required. Otherwise there is possibility of misunderstanding and misinterpretation of the intent and operation of the joint arrangement.

Definite understanding on the part of sales personnel of their relations to each association is essential.—If the operation of a joint-sales organization functioning for two or more associations is to be successful, the relations of the sales personnel to each association must be definitely prescribed and understood. This is particularly true in arrangements similar to those existing between the California Fruit Growers Exchange and the California Fruit Exchange, where the intent of the agreement is to allow each association to have control of the sales organization for the purpose of selling its own commodities.

An understanding of the joint arrangement by customers is necessary.—In so far as possible the customers of the associations should understand the relations of the agent to each association which he represents. The separate identity of each association should be made clear in order that customers may attribute transactions and policies to the proper sources. Thus an unfavorable reaction toward one association is prevented from influencing customers against the products of the other association.

Equitable distribution of cost of maintenance of sales organization is necessary.—In order to preserve the cooperative character of the arrangement, an equitable distribution of the annual joint cost of maintenance should be made between the associations using the joint-sales organization.

ORGANIZATION OF THE
UNITED STATES DEPARTMENT OF AGRICULTURE

November 17, 1927

<i>Secretary of Agriculture</i> -----	W. M. JARDINE.
<i>Assistant Secretary</i> -----	R. W. DUNLAP.
<i>Director of Scientific Work</i> -----	A. F. WOODS.
<i>Director of Regulatory Work</i> -----	WALTER G. CAMPBELL.
<i>Director of Extension</i> -----	C. W. WARBURTON.
<i>Director of Personnel and Business Administration</i> -----	W. W. STOCKBERGER.
<i>Director of Information</i> -----	NELSON ANTRIM CRAWFORD.
<i>Solicitor</i> -----	R. W. WILLIAMS.
<i>Weather Bureau</i> -----	CHARLES F. MARVIN, <i>Chief</i> .
<i>Bureau of Animal Industry</i> -----	JOHN R. MOHLER, <i>Chief</i> .
<i>Bureau of Dairy Industry</i> -----	C. W. LARSON, <i>Chief</i> .
<i>Bureau of Plant Industry</i> -----	WILLIAM A. TAYLOR, <i>Chief</i> .
<i>Forest Service</i> -----	W. B. GREELEY, <i>Chief</i> .
<i>Bureau of Chemistry and Soils</i> -----	H. G. KNIGHT, <i>Chief</i> .
<i>Bureau of Entomology</i> -----	C. L. MARLATT, <i>Chief</i> .
<i>Bureau of Biological Survey</i> -----	PAUL G. REDINGTON, <i>Chief</i> .
<i>Bureau of Public Roads</i> -----	THOMAS H. MACDONALD, <i>Chief</i> .
<i>Bureau of Agricultural Economics</i> -----	LLOYD S. TENNY, <i>Chief</i> .
<i>Bureau of Home Economics</i> -----	LOUISE STANLEY, <i>Chief</i> .
<i>Federal Horticultural Board</i> -----	C. L. MARLATT, <i>Chairman</i> .
<i>Grain Futures Administration</i> -----	J. W. T. DUVEL, <i>Chief</i> .
<i>Food, Drug, and Insecticide Administration</i> -----	WALTER G. CAMPBELL, <i>Director of Regulatory Work, in Charge</i> .
<i>Office of Experiment Stations</i> -----	E. W. ALLEN, <i>Chief</i> .
<i>Office of Cooperative Extension Work</i> -----	C. B. SMITH, <i>Chief</i> .
<i>Library</i> -----	CLARIBEL R. BARNETT, <i>Librarian</i> .

This circular is a contribution from

<i>Bureau of Agricultural Economics</i> -----	LLOYD S. TENNY, <i>Chief</i> .
<i>Division of Cooperative Marketing</i> -----	CHRIS. L. CHRISTENSEN, <i>in Charge</i>

ADDITIONAL COPIES

OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
U. S. GOVERNMENT PRINTING OFFICE

WASHINGTON, D. C.

AT

10 CENTS PER COPY

▽